

WHAT IS CLAIMED IS:

1. An ordnance venting system to reduce the danger of explosion from heat induced over-pressurization in rocket warheads, comprising:

a first rocket section comprising a warhead section having at least a first connectable end; and,

an adapter that melts at high temperatures having a first mating surface and a second mating surface, the first mating surface of the adapter effective to rigidly connect to the first connectable end of the rocket warhead section and the second mating surface of the adapter effective to rigidly connect with a connectable end of a second rocket section,

10 wherein the adapter binds the first rocket section and second rocket section.

2. The ordnance venting system of claim 1, wherein the rocket warhead section comprises a single compartment explosive fill.

3. The ordnance venting system of claim 1, wherein the rocket warhead section comprises a multiple submunitions.

15 4. The ordnance venting system of claim 1, wherein the second rocket section comprises a rocket fuze section.

5. The ordnance venting system of claim 1, wherein the rocket warhead section comprises a second connectable end, and further comprising a second adapter, the second adapter effective to rigidly connect to the second connectable end of the rocket warhead section.
6. The ordnance venting system of claim 1, wherein the rocket warhead section connectable end comprises threads.
7. The ordnance venting system of claim 1, wherein the adapter comprises a thermoplastic material.
8. The ordnance venting system of claim 7, wherein the thermoplastic material comprises polycarbonate.
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9. The ordnance venting system of claim 8, wherein the thermoplastic material comprises polycarbonate filled with glass in an amount of from about 30 weight percent or more.

10. The ordnance venting system of claim 9, wherein the thermoplastic material comprises polycarbonate filled with glass in an amount ranging from about 30 weight percent to about 40 weight percent.
11. The ordnance venting system of claim 1, wherein the adapter comprises a nylon material.
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12. The ordnance venting system of claim 1, wherein the adapter comprises a Teflon material.
13. The ordnance venting system of claim 3, wherein the rocket warhead section comprises a multitude of adapters between the multiple submunitions.
- 10 14. A rocket comprising the ordnance venting system of claim 1.
15. The rocket of claim 14, wherein the rocket comprises a MK 66 Rocket.
16. The ordnance venting system of claim 1, wherein the adapter melts at a temperature of from about 350°F or greater.

17. The ordnance venting system of claim 1, wherein the adapter structurally fails at a pressure of from about 5000 psi or greater.

18. A method of venting a rocket warhead, comprising the steps of:

providing an ordnance venting system to reduce the danger of explosion from heat

5 induced over-pressurization of the rocket warhead comprising a first rocket section comprising a warhead section having at least a first connectable end and an adapter that melts at high temperatures having a first mating surface and a second mating surface, the first mating surface of the adapter effective to rigidly connect to the first connectable end of the rocket warhead section and the second mating surface of the adapter effective to rigidly connect with a connectable end of a second rocket section, wherein the adapter binds the first rocket section and second rocket section; and,

melting the adapter prior to ordnance cook-off, wherein pressure within the rocket warhead causes the adapter to fail, thereby releasing pressure from within the rocket warhead.

15 19. A vented rocket warhead product produced from the method comprising the steps of:

providing an ordnance venting system to reduce the danger of explosion from heat

induced over-pressurization of the rocket warhead comprising a first rocket section comprising a warhead section having at least a first connectable end and an adapter that melts at high temperatures having a first mating surface and a second mating surface, the first mating surface of the adapter effective to rigidly connect to the first connectable end of the rocket warhead section and the second mating surface of the adapter effective to rigidly connect with a connectable end of a second rocket section, wherein the adapter binds the first rocket section and second rocket section; and,

melting the adapter prior to ordnance cook-off, wherein pressure within the rocket warhead causes the adapter to fail, thereby releasing pressure from within the rocket warhead.

20. The vented rocket warhead product of claim 19, wherein the first rocket section become pushed away from the second rocket section by the structural failure of the melting adapter.